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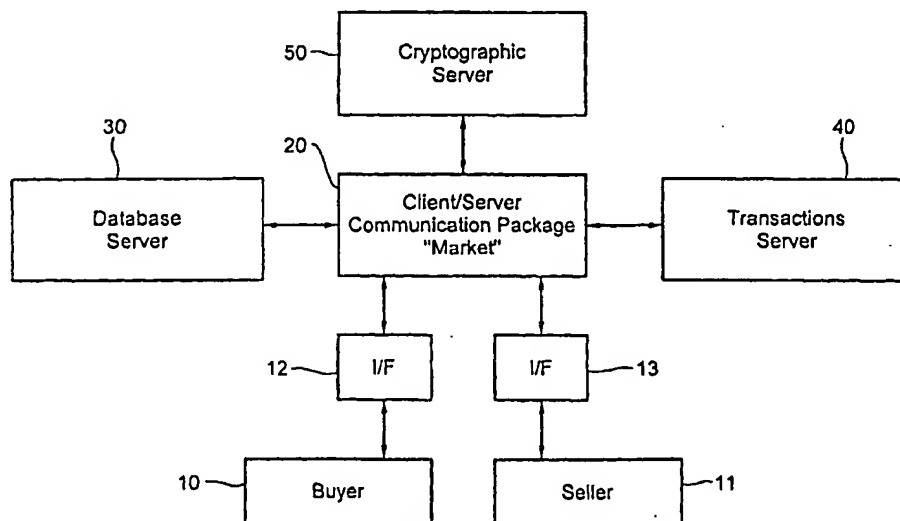
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(54) Title: METHOD FOR FACILITATING A CONTINUOUS MARKET AUCTION SYSTEM



(57) Abstract

A method for facilitating a continuous market auction to determine a true market price for a time-dependent consumer good (TDCG) or consumer collectible good (CCG) is presented in a cost-effective manner. An owner of TDCGs or CCGs registers (30, 40) the goods at a market nexus (20) where buyers (10) and sellers (11) can interact, preferably at an on-line website. The goods are auctioned at a starting market price, which continues to be available until a buyer demands physical possession of the goods or until a specified final closing date. Potential buyers and sellers having accounts at the market nexus can exchange the TDCGs or CCGs indefinitely, effecting "a continuous auction" (40) without a buyer taking physical possession of the TDCGs or CCG. Each buy/sell transaction reflects the current and constantly updated market price, and is disseminated to all participating parties.

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## METHOD FOR FACILITATING A CONTINUOUS MARKET AUCTION SYSTEM

### BACKGROUND OF THE INVENTION

#### Field of the Invention

The present invention relates to a market auction system for goods, more particularly to a  
5 method for facilitating a continuous market auction system to determine a true and accurate market price for time-dependent and consumer collectible goods.

#### Description of the Related Art

In a stock exchange or similar auction market, purchase orders must be matched with  
orders to sell in order to arrive at a price at which a sale may be completed. For example, in the  
10 New York Stock Exchange (NYSE), the ultimate determination of price for a given transaction is typically effectuated by a specialist, who deals in a particular stock and maintains a running "book" of offers to sell and orders to purchase that stock. The specialist completes transactions by matching sell and purchase orders with respect to price. However, the specialist, based on his judgment, may at times purchase or sell the stock he or she specializes  
15 in to prevent violent fluctuations in price in order to maintain the market (or market price). These functions must be carried out in all auction-based markets for the marketing of fungible goods, including commodities such as wheat, corn, soybeans, etc., as well as for stocks and bonds.

Until the 1970s, the aforementioned specialist only performed these functions, since  
20 there was apparently no adequate substitute for human judgment in setting or determining market price. However, with increasing complexities in the business structure on which the market was based (for example, due in part to the explosion of available securities as well as the marked increase in market participants) there was a need to automate price determinations in an auction market to maintain an orderly market, while reducing the necessity to exercise  
25 human judgment.

An early computation system for establishing market prices for fungible goods by an auction format is described in U.S. Patent No. 3,581,072 to Nymeyer. The Nymeyer system provides a means for recording a series of buy and sell orders for a given period of time, a

means for arranging the buy/sell orders in a particular order so that they can be compared against a closing price (last selling price) of a particular good; and a comparing mechanism for comparing the buy and sell orders to determine the lowest compatible pair of buy and sell orders to set the new selling (market) price for the goods. Thus, the lowest matching bid/ask price is used as the market price at which all transactions are executed.

Today, in an effort to keep up with the requirements imposed by the longest period of economic expansion in the history of the United States, the modern business marketplace has become computerized. To serve the growing masses of individual investors, buyers, wholesalers, distributors and consumers, business have created on-line interactive electronic marketplace systems. U.S. Patent No. 4,799,156 to Shavit et al., describes a typical on-line interactive market system. Shavit et al. provide an interactive market nexus for buyers and sellers, which controls and updates orders, inventories, bids and news for each user who communicates with the system. Although no market price is set for a particular good, the Shavit et al. system increases efficiency of the marketplace by optimizing procurement processes, reducing inventory costs and permitting the completion of previously-thought-impossible business transactions or arrangements.

Moreover, various types of auction systems have been adapted to the Internet in an effort to expand the marketplace into the homes of every consumer. Conventional auction techniques such as an English auction (highest price bid is the price paid and every bidder knows the bids paid by others), Dutch auction (seller offers lower and lower prices until buyer(s) claim item at last offered price), first-price sealed bid auction (fixed bids submitted and highest accepted), and second-price sealed bid auction (same as the former, but highest bidder pays the amount bid by second-highest bidder) have now been embodied in computer programs of websites which can be accessed by anyone having a computer and modem. One example of a computer-based system utilizing a second-price sealed bid auction technique for allocating resources is found in U.S. Patent 5,640,569 to Miller et al. Other well-know companies that perform one-way auctions on the Internet include EBay™, Priceline™ and Amazon™, for example. Each of these companies has extensive goods and services available

to consumers at their respective websites so consumers may compete for certain marketable goods.

However, certain kinds of marketable goods pose problems for businesses and the market, particularly regarding the determination of a market price. One example is a good that  
5 applies to a specific action or event at a set date and time, i.e., a time dependent consumer good (hereinafter "TDCG"). Examples of TDCGs include, but are not limited to tickets to sporting or entertainment events, transportation tickets and hotel reservations. The current market for TDCGs is characterized by instability--one of frequent shortages (asking price falls below potential market price) and frequent surpluses (asking price too high).

10 Due to shortages, other methods of allocation such as black marketing (scalpers) and long queues have arisen, costing business untold millions in potential revenue, while shutting out consumers from potential events or tickets for which they would have been willing to pay the market price. Due to surpluses, overbooking by businesses has been practiced as an alternative, with little success. This imprecise strategy often results in major consumer  
15 inconvenience, either costing consumers millions in income by requiring them to pay an above-market price, or causing businesses to lose countless sales. The reason for this "market failure" with respect to TDCGs is the time dependent nature of the good—at some point in time the TDCG no longer has value. Businesses must set the price for the TDCG well in advance of the date of the event, and face difficulties in adjusting the price of the TDCG as the  
20 event date draws closer. Currently, massive efforts by the business industry to find a market-clearing price for TDCGs have proven unsuccessful.

Another type of good essentially lacks a market altogether—the consumer collectible good (CCG), which is a good not consumed, but saved for investment or sentimental reasons. CCGs include, for example, collectibles such as baseball cards, coins, stamps, antiques and  
25 Beanie Babies™. Although there are a ready supply of interested collectors and a wide number of businesses and shows dedicated to the buying and selling of CCGs, there is no efficient national or global market. Instead of having a national market price (such as is the case for commodities, stocks and bonds, etc.) prices for these goods are often only locally or

geographically variable. Further, buyers frequently have trouble finding a particular CCG, and sellers often face of shortage of interested buyers due to a lack of efficient dissemination of information concerning the CCG, since information for determining an accurate market price (and hence value of the CCG) is sparse.

5        Recently, developments in on-line auction technology (as briefly discussed above) have expanded the market for exchanging CCGs. However, currently available on-line auction websites are limited in that market price is determined by one-way bidding only. Further, physical transfer of ownership (delivery of the CCG) is required after each completed transaction. Thus, the limited market for CCGs prevent timely market price evaluations for the  
10 goods, forcing potential buyers and sellers to seek reported prices in publications, at trade shows, or by searching for the inefficient market of an on-line auction.

Therefore, what is needed is a method for determining a true and accurate market price for TDCGs and CCGs in a cost-effective way, whereby information regarding the market price for a particular TDCG or CCG can be efficiently disseminated to all interested parties. Finding  
15 a true market price for these goods would be of immense value to consumers, businesses and the aggregate economy.

#### SUMMARY OF THE INVENTION

The present invention overcomes the current problems regarding the determination of a market price for TDCGs and CCGs by providing a method for facilitating a continuous market  
20 auction. In a preferred embodiment, an owner of TDCGs or CCGs registers the goods at a market nexus or central location where buyers and sellers can interact in a cost-effective way to conduct business transactions, preferably at an on-line website. At a specified date and time, the TDCGs or CCGs are auctioned at a minimum or starting market price, which continues until a buyer demands physical possession of the TDCGs or CCGs, and/or until a specified final closing date. Potential  
25 buyers and sellers having accounts at the nexus exchange the TDCGs or CCGs an indefinite number of times at their discretion on-line, thus "a continuous auction" is effected without a buyer actually having to take physical possession of the TDCGs or CCGs.

Specifically, after each transaction, the seller's account is credited with revenue and debited

ownership, whereas the buyer's account is credited with ownership and debited revenue. Trading activity (each buy/sell transaction) reflects the current and constantly updated market price for the TDCGs or CCGs, which is disseminated to all participating parties. At any time up to and until the closing date, each buyer has the option of executing his or her physical possession, whereupon the TDCGs or CCGs are delivered in an efficient manner. Alternatively, and as a seller, the "buyer" may sell his or her right of ownership to another prospective buyer in the time remaining for trading the TDCG or CCG, the sale price indicating the updated market price for the TDCGs or CCGs.

#### BRIEF DESCRIPTION OF THE DRAWINGS

The present invention will become more fully understood from the detailed description given hereinbelow and the accompanying drawings, wherein like elements are represented by like reference numerals, which are given by way of illustration only and thus are not limitative of the present invention and wherein:

Fig. 1 illustrates a basic overview of an exemplary continuous market auction in accordance with the present invention;

Fig. 2 illustrates an exemplary hardware implementation of an electronic trading system as related to Fig. 1;

Fig. 3 illustrates an exemplary method of how to get to making a trade;

Fig. 4 illustrates an exemplary method of how to post a TDCG or CCG on the electronic trading system;

Fig. 5 illustrates exemplary information available for an exemplary sub-category of the market;

Fig. 6 illustrates exemplary account data available to a user;

Fig. 7 is a bid flow diagram illustrating the functionality of an exemplary continuous market auction in accordance with the present invention; and

Figs. 8A-8E illustrate an exemplary method of continuously determining and updating market price for a TDCG/CCG with the electronic trading system 500 of the present invention.

### DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

The preferred embodiment of the present invention provides a method for facilitating a continuous market auction in a web-based, electronic trading system to determine a true and accurate market price for TDCGs and CCGs. The continuous updating of market price in a cost-effective manner will prevent shortages and surpluses in the supply of TDCGs and CCGs. Regarding TDCGs, businesses will be able to sell out an event without having to allocate vast resources and time searching for an accurate market price; and consumer will be able to purchase TDCGs without waiting in long lines. Regarding CCGs, a centralized market nexus means that buyers and sellers will always find an available supply and demand at the market price. Moreover, the preferred embodiment allows continuous trading of the TDCGs and/or CCGs, with the option of executing physical delivery of the good or executing mere right in ownership of the good within a specified time period to promote an accurate market price.

Fig. 1 illustrates a basic overview of the preferred embodiment. The preferred embodiment provides a web-based continuous electronic trading system which provides an on-line market nexus for buyers and sellers to determine a true market price for commodities such as TDCG's and CCG's. A user 100 (a prospective buyer and/or seller) can access the on-line electronic trading system 500, which is built on the client/server WWW Model. For example, the electronic trading system 500 may be accessed via a web browser on the client machine to connect to the system's main trading software residing on the client server, which will be explained in more detail below. Within electronic trading system 500, the user has access to account data 300. Account data 300 includes all account data for the user such as the user's portfolio of TDCG/CCGs, account balance, and account history, for example. The user can also research a particular TDCG or CCG in community/research 400. To conduct the buying and selling of TDCGs and CCGs on the electronic trading system 500, the user will access a market nexus 200. Market nexus 200 is part of a central communication package on the client server and will handle and control all user interfaces needed to participate in a continuous market auction.

Fig. 2 illustrates an exemplary hardware implementation of the electronic trading system



500 as related to Fig. 1. In Fig. 2, there is a database server 30, transactions server 40 and cryptographic server 50, all in communication with a central client server (hereinafter market server 20) to receive/transmit information between a buyer 10 and/or seller 11. Referring to Fig. 2, market server 20 handles all user interfaces from the buyer 10 and/or seller 11, and controls the flow of information between the various servers comprising the web-based electronic trading system 500. Market server 20 may include all programming and logic for enabling processing circuitry to assimilate, organize and direct market data of consumer goods for trading on the electronic trading system 500, so as to inform all parties of a determined and continuously updated market price, upon completed transactions between buyers and sellers. Market server 20 may be a central client communication module or package on a server which communicates with the database server 30 to store and access a variety of information that is input by the buyer and/or seller, and contains embedded stored data that is accessed for various transactions to be performed. For example, database server 30 contains a database for registering TDCG/CCGs for bids, as well as all personal and financial information of the buyers and sellers.

15       The transaction server 40 handles all transactions involved in the continuous market auction. Transaction server 40 includes all the logic and processing circuitry needed to perform the following; including but not limited to: providing the actual (specific) or market bid for potential buyers and sellers, maintaining the queue order of highest and lowest bids, the execution of matching up bids and asks between potential buyers and sellers to determine a transaction price and hence the market price, the volume calculated by the number of items transacted, as well as all the information which will be displayed on the website for the user including the most recent transaction (which is the listed price), a listing of the bids and asks within the queue and the current volume displayed.

25       The cryptographic server 50 serves to secure all personal and financial information of registered buyers and sellers. The communication package for market server 20 can be proprietary software or standard client-server web configurations such as Apache® Web Server or Microsoft® Internet Information Server on the server side and a Microsoft® Internet Explorer/Netscape® Navigator on the client side, for example. The buyer 10 and/or seller 11 accesses the market server

20 through an interface 12 or 13, which can be a telephone, dial-up modem, ISDN, DSL/ADSL, satellite broadband, wireless and/or fiber-optic cable to connect the user to the market server 20. In an alternative embodiment, market server 20 could be used to implement some of the security functions of the cryptic cryptographic server 50, so as to establish a firewall to protect the trading system 500 from outside security breaches. Any additional functionality required could be added utilizing JAVA programs compiled with a JAVA compiler such as Semantic<sup>®</sup> VisualCafe or Microsoft<sup>®</sup> J++.

The database server 30 and transactional server 40 can be relational database management systems, as is well known in the art, such examples being a Microsoft<sup>®</sup> SQL Server and an Oracle<sup>®</sup> SQL Server. These servers can service the back end of data processing, registering all bids, processing payments and ownership information as well as recording all data for historical purposes, for example. Cryptographic server 50 can contain all public key information necessary to secure the personal and financial information of registered buyers and sellers. In an exemplary configuration it could handle all physical information in encrypted form.

Fig. 3 illustrates a flow diagram on how to make a trade in accordance with the present invention. Initially, the user establishes a connection (not shown) between their location and the electronic trading system 500, i.e., such as connecting to the Internet via their respective web browser and accessing the website of the electronic trading system 500. At login (201) the user will be required to enter a password, which will be verified by the electronic trading system 500. If this is the user's first time at the website, they will be prompted and asked whether they wish to register, whereupon they will select a password to use for subsequent visits. Once the password has been verified, the user is directed to a screen which enables them to view market categories 210. Particularly, these are market categories of the various TDCGs and CCGs available for trading utilizing a continuous market auction in accordance with the present invention.

Additionally on the screen, the user has the ability to perform a search 211, browse 212 or can enter a symbol 213 for a particular market category via an input device such as a mouse for example. The search 211 function enables the user to investigate a sub-category or sub-market for a particular TDCG or CCG. The browse 212 function allows a user to input a desired TDCG or

CCG, and the enter symbols 213 function allows the user to enter a particular symbol of the TDCG or CCG to get to a sub-category 215.

For example, a category might be baseball tickets. If a user wants to specify the exact team and location or grouping of tickets he/she wants; then they would select a category of "baseball tickets" and then hierarchical sub-categories of "Chicago Cubs<sup>®</sup> baseball tickets" and, to request a specific location, such as "4 tickets behind the plate", a further embedded sub-category which specifies location of seating. Alternatively, if a user wanted a Mark McGwire rookie card, for example, they would first enter a "baseball cards" category and then select a displayed sub-category for "rookie cards". Once the user utilizes the sub-category 215 to select the desired TDCG and/or CCG in which the user wishes to bid/ask, the user can then make a trade using the make trade function 216.

Fig. 4 illustrates how to post a good such as TDCG or CCG in accordance with the present invention. Initially after accessing market server 20 so as to enter the website, a user can initiate a market lookup function 220 if they desire to post a TDCG or CCG for sale. Operation of market lookup function 220 may enable the user to either add a tradable using an add tradable function 225, and/or request a new symbol for a particular TDCG or CCG by clicking a requested new symbol 230 function on the screen of the user's display.

Initiation of either the add tradeable 225 function or request new symbol 230 function prompts a view tradeable screen 235, which lists the symbol 236 and name 237 of the TDCG/CCG and a brief description 238 of the desired TDCG/CCG which is to be posted. Once the user visually confirms that the information is correct and actuates a confirmation operation (not shown) the user (in this case the user is a seller) may then enter the quantity 240 of the TDCG/CCG which they wish to post for trading within a continuous market auction.

Alternatively, a block of goods may be commoditized at the outset prior to trading of the TDCG/CCG on the electronic trading system 500. This can be done by contractual arrangements or agreements between the business entity (seller) and the website corporation or company who is running the electronic trading system 500 (hereinafter Company). In this scenario, the Company would list and place the block of goods (such as rock concert tickets) on the view tradable screen

235 under a suitable heading, to be traded upon announcement of the initial public sale (IPS) of the block of goods at a specified date, determined either by the Company or by the business entity (seller) via contractual arrangement/agreement.

Fig. 5 illustrates the information available to the user when they actuate the view sub-  
5 category 215 function shown initially in Fig. 3. Referring to Fig. 5, once the user has entered the desired market category and has selected a desired sub-category, the user is then provided with a variety of transactional information in which they can base an informed decision. This information includes a description 250 of the TDCG/CCG being auctioned, the queues of the bid/ask prices 255,  
10 which are stored from the highest to the lowest within transaction server 40, but which are displayed in time order, and aligned along a similar price/limit for each respective bid/ask.

Specifically, two sets of queues are displayed, one for the buyers and one for the sellers of the TDCGs/CCGs. For the buyer queue, bids of potential buyers are prioritized first by bid price (highest to lowest). If two or more bids are equal, then these equal bids are prioritized by time of bid, the earlier bid price prioritized above the later bid price (assuming equal bids). For the seller  
15 queue, asks are first prioritized by lowest ask to highest ask. Similarly to the buyer queue, two or more equal ask prices are prioritized by time entered into the auction, the earlier ask price prioritized above the later submitted ask price.

Additionally, the current market price 260 of the TDCG/CCG is displayed, along with the volume of the number of items (TDCG or CCG) being transacted, and historical data 270 for the  
20 TDCG/CCG being transacted. Further, the screen provides avenues for the user to browse sub-markets with a browse sub-market function 275, as well as a browse-like tradables function 280, in the event the user wishes to browse other markets or look for similar TDCGs/CCGs. The browse sub-market function 275 is similar to the sub-category function 215 discussed earlier with respect to Fig. 3.

25 It is noted that on the electronic trading system 500, all TDCG/CCGs will be commoditized or grouped according to like characteristics, and according to the detail required by the user. Such detail can be originally determined by the Company, and then periodically updated based on user feedback, for example. As an example, "Babe Ruth rookie cards-mint condition" will have a

grouping of all Babe Ruth rookie cards which are submitted by the sellers to be in mint condition. Further, each category or sub-category of TDCG/CCG may have an associated symbol (as noted above) or code attached to it, for identification purposes. Such a coding system could be similar to the SIC (Standardized Industrial Classification) system currently used in commerce today to classify  
5 groups of like goods. This will enable a capital market or mini market nexus to be created for each category of goods offered on the electronic trading system 500, and will provide a quality assurance aspect to all goods traded thereon.

Fig. 6 illustrates the account data available to users when they have connected to the electronic trading system 500. After connection and login at 301, the user initiates a view account  
10 data operation 310 with an input device such as a mouse. Upon operation, a screen appears which provides a plurality of account information for the user. For example, the user can view their account/transfer data by manipulating view account transfer function 311; they can view the portfolio by actuating a view portfolio function 312, can view their account history 313, tax information 314, user information 315, system messages from other clients and/or participants 316  
15 or may log out/change the user at 317. When selecting the view account/ transfer function 311, the user will be able to see the actual amount of money remaining in their account if they are a buyer, or the transfer amount that has been transferred to their account if they are a seller. When viewing a portfolio 312, the buyer/seller can view the list of TDCGs/CCGs which they have either bought or posted on-line. By actuating the view account history function 313, the user can access a  
20 time, organize account history which includes bid/ask transactions performed within a past time frame selected by the user, so as to give him/her an idea of what prices people have been posting/paying for a particular TDCG/CCG. By selecting the view tax information function 314, the user can determine the tax required on a particular TDCG/CCG.

If the user selects the view user information function 315, the user will have access to all  
25 personal and financial information that they have entered into the electronic trading system 500. This function provides the opportunity to make changes/additions to their user information, which will then be updated into by the database server 30. If the user desires to view electronic trading system messages that have been posted within a period of hours to a period of days, the user can

operate view system messages 316 function. Regarding the view portfolio function 312, selection of this function allows the user to register TDCG/CCGs so as to post them on the on-line continuous market auction of the electronic trading system 500 for trading.

All TDCGs/CCGs must be warehoused prior to the IPS, and are only moved once a buyer  
5 has asked for physical delivery of the TDCG/CCG, and/or the time period set for the sale of particular TDCG/CCGs has expired. First, it is noted that the seller (individual or business entity) who posts the TDCG/CCG for the IPS also warehouses the goods. Also, if the TDCG/CCG is traded several times over in the continuous market auction, the original seller who posted the good receives a "warehouse fee" or commission to be set by the Company, which can be based on a  
10 number of variables. For example, a warehouse fee can be paid for each time the TDCG/CCG is traded, or the warehouse fee can be paid based on the goods remaining in the original seller's warehouse (if they are selling blocks of a TDCG/CCG at one time). This source of these commissions is the escrow money paid into escrow accounts

Further, if multiple TDCGs/CCGs are being posted by multiple original sellers (and  
15 therefore multiple warehouseurs) at a single IPS, then a pro rata share or commission based on the market is determined and paid out as the warehouse fee. Specifically, the eventual shipper would be the warehouse closest to that buyer (who can ship with lowest cost as determined by the Company) who makes the "final" buy (elects to take physical possession of the goods). For example, assume there are two sellers A and B having a stock of 50 Beanie Babies™ each that are  
20 to be sold at an IPS. Initially in this exemplary scenario, the commissions are split 50/50. However, assume one of the buyers elects to take physical possession, thus either seller A or seller B must ship the good to the buyer. Seller A, who is geographically closer and who can ship the CCG with lower cost, is designated by the Company as the shipper. Thereafter, the commissions will be re-allocated such that seller A will receive only 49% of each future commission (since now seller A has  
25 a smaller stock) and seller B will receive 51% of each future commission. This re-allocation of the warehouse fee will be updated after each transference of a good in the "multiple warehouseurs" scenario, hence a pro-rate share is paid out based on the market supply. Moreover, the electronic trading system 500 provides an incentive for sellers to store or warehouse the goods that are posted

at an IPS. However, this incentive does not apply to those buyers who elect only to take right in ownership (such as a re-seller of tickets who simply buys a block of tickets in the hopes of making a profit reselling before expiration of the IPS (i.e., the date of the event)).

The Company may have a no-return policy on TDCG/CCGs bought and sold. All buyers  
5 and sellers may agree that the goods posted are in the condition stated by the seller, and that any good which is of unacceptable quality may be replaced by a similar TDCG/CCG. Any disagreements which cannot be rectified between buyer and seller may then be subject to a third party arbitration process. Further, the Company may also reserve the right to hold funds in escrow for both the buyer and/or seller—so as to prevent the incentive to deceive on the part of the seller,  
10 and/or to prevent the buyer from backing out of a completed transaction. Moreover, an unhappy buyer may have the opportunity to re-post the TDCG/CCG at a later date, in the event they are unsatisfied with their purchase.

As previously discussed, and prior to an IPS, items are grouped or classified according to like characteristics by the Company, and/or as a result of user feedback. The symbols or codes used  
15 for the categories and sub-categories of goods create a capital or stock market of goods having the same quality and product characteristics as described. In the description of the TDCG/CCG, therefore providing for quality assurance for all goods traded at the IPS.

Fig. 7 provides a bid flow diagram which illustrates the operation of the continuous market auction in accordance with the present invention. Referring to Fig. 7, a commodity such as a  
20 TDCG or CCG is initially registered with the electronic trading system 500 (step S1). The on-line website of electronic trading system 500 then announces the IPS for the posted TDCG/CCG (step S2).

Before trading begins, the market server 20 may access the transaction server 40 to access an initial market price for the posted commodity. This initial market price may be based on the  
25 historical data stored from similar TDCG/CCGs that have been bought/sold, which is contained within transaction server 40. Additionally, the seller of the TDCG/CCG can himself set the initial market price. Moreover, and before the IPS of the TDCG/CCG, the seller may allocate the TDCG/CCGs beforehand to potential buyers before any active trading begins at the IPS.

Essentially in this scenario, the TDCGs having been already allocated, the Company and/or seller by contractual agreement set the IPS date, on which trading begins, with no specific market price set. These bids would help other sellers determine what might be an acceptable market price to set for the IPS, for example. Alternatively, the seller may have the option to use conventionally known auction techniques such as an English auction (highest price bid is the price paid and every bidder knows the bids paid by others), Dutch auction (seller offers lower and lower prices until buyer(s) claim item at last offered price), first-price sealed bid auction (fixed bids submitted and highest accepted), and second-price sealed bid auction (same as the former, but highest bidder pays the amount bid by second-highest bidder). At step S3, the website announces that it is holding an IPS to all registered participants (which may be, and for a TDCG almost always is, for a finite time period), and trading begins. At this point, two simultaneous processes are performed between potential buyers and sellers.

Steps S4-S7 illustrate the actions performed by the potential buyers, whereas steps S24-S27 illustrate the actions initiated by potential sellers of the posted TDCG/CCG. Recall that sellers of the (TDCG/CCG) will post it on the market via a telephone or web interface, the TDCG/CCG information is stored in database server 30 and made available to other participants on a market nexus screen at the website. As noted above, sellers will designate the description of their goods, as well as market attributes such as date to begin sale and type of sale (announced at step S3). Additionally as noted above, buyers access the electronic trading system 500 by logging in through a web browser or another interface, and are provided with a view of the current market, which they may navigate through to select a desired TDCG/CCG to bid on. They are then provided with data such as the current ask price, volume and number of items being traded, and at this point can then issue a bid, which is securely communicated to market server 20 and saved on transactions server 40.

Accordingly, after the IPS is announced and trading begins, the potential buyers make bids (step S4) and potential sellers make bids (step S24). The market nexus screen then asks the users (a potential buyer and/or a potential seller) if the bid is a market bid or specific bid (steps S5/S25). A specific bid/ask is a bid/ask determined by the buyer or seller (an ask of \$30, for example). A



market bid/ask is a bid/ask where the buyer or seller says to bid/ask at the current market price with a limit (buy at the current market price of \$20 with a limit of \$25, for example).

The last transacted price is always the market price. If the buyer and/or seller bid is a market price, the market server 20 determines whether or not the bid equals the last transacted price  
5 or market price. If there is no matching transaction, (i.e., no matching price between a buyer and seller yet,) then the price goes to the limit of the market bid/ask. If the bid is a specific price, then market server 20 determines whether or not there are any equal buyer bids that are greater than or equal to the asks (step S8). Since the bid queues and the ask queues are sorted according to price and time of bid/ask, the electronic trading system 500 looks for a buyer bid that is greater than or  
10 equal to the lowest ask price (which is the highest ask in the seller queue). It is important to note that a seller making a bid is really a potential seller submitting an ask price for the TDCG/CCG being traded upon.

Regarding step S8, if there are equal price bids of the buyers that are greater than or equal to the lowest seller ask price, then a transaction is executed in step S9, and a market price is set as  
15 the average of the transacted bid/ask. After the transaction, the "new" market price would be equal to the average between the transacted or "matching bid/ask, the market price volume would be updated, and the accounts for the prospective buyer and seller would also be updated to reflect the transaction by market server 20. Additionally, in step S11 the market price would be updated to reflect the new calculated price, and new bids (and asks) which are higher or lower than the market  
20 price will be moved to the front of a bid/ask cue. It is of note that the market bid cannot fall above or below a specific bid. However, if there are no equal bids of potential buyers that are greater than or equal to the lowest ask bid (top of seller queue) of the potential sellers, the bids enter a queue in step S10. As discussed above, the buy bids are ranked highest to lowest and then by time of entry, whereas the sell asks are ranked lowest to highest and then by time of entry. Accordingly, the  
25 market will be sorted by price and time.

A buyer may become a seller, immediately re-posting the TDCG/CCG for sale and selling it in the continuous market auction. This is because the transfer of ownership is a transfer in right of ownership, as noted above, and the transfer (i.e., final transaction) for the TDCG/CCG is complete

only when a buyer requests physical possession of the TDCG/CCG from the current seller.

Example

Figs. 8A-8E illustrate an exemplary method of continuously determining and updating market price for a TDCG/CCG with the electronic trading system 500 of the present invention.

5 Initially referring to Fig. 8A, there are illustrated two queues, a seller queue 400 and a buyer queue 410. Each queue is prioritized by price and time, with market bids/asks indicated by "market (\$\$)" with the (\$\$) being the limit at which the buyer will buy and which will become the last transacted or market price, and specific bids indicated by the bid/ask value. As can be seen in Fig. 8A, from the first twelve bid/asks (t01 to t12) there are no matching bid/ask (bid (offer)  $\geq$  ask); therefore  
10 each of these first twelve bid/asks are placed in one of the two queues. At time t13, a seller asks 11; this seller now has provided an "ask" in the seller queue 400 which moves to the top of seller queue 400 and which now has several bids which are greater than or equal to it, so there will be a transaction. Since the bid market (14) at time t05 is the highest bid in the buyer queue 410, it is matched with ask 11 at t13 and a transaction is performed where the seller (at time t13) sells to  
15 buyer (t05), who buys at the market price, which is the average of the bid and ask, or 12.5. This is now the market price.

In Fig. 8B, it can now be seen that the market price and queues 400 and 410 have been updated, and all the previous limit prices of all the market bids in the buyer queue 410 have been updated to reflect the last transacted price (current market price). In this scenario, a seller at t14  
20 asks at (11) the market price of 12.5, and a transaction is immediately executed between the seller at t14 and the highest bid in the queue, market=12.5 (previously 13) at t03. This is because the decision at step S8 in Fig. 7 has been satisfied. Note that although the ask was actually 11, the transaction price occurs at the market price of 12.5. Although there were three equal buy bids, the one at t03 gets precedence because it was the earliest (t03, versus t06 and t11). Similarly to Fig.  
25 8A, the market and queues 400 and 410 are updated (no change here since the highest bid of 12.5 was = to the ask of 12.5 (which at t14 was sent to the top of the seller queue 400 as the top ask).

In Fig. 8C, it can be seen that at the very next time, t15, a seller asks at 10, which initiates a transaction since the top buy bid in the buyer queue is still at 12.5 (meeting the criteria of Step S8 in

Fig. 7). Accordingly, the transaction occurs at the market price of 12.5, selling the TDCG/CCG to the buyer bidding the market price at time t06. However, and as shown in Fig. 8D, at time t16 a buyer enters a specific bid of 13. Since the top ask in the seller queue 400 is now market (16) at t02, the decision of Step S8 is not satisfied, so the specific bid of 13 would line up behind the market bids at times t06 and t11. Further these market bids (at t06 and t11) adjust to their limit, since the specific bid is equal to their limit of 13. This satisfies item (c) in step S11 of Fig. 7. Accordingly, the buyer bidding market (13) at t06 (remember the market bid has shifted to its limit) would go to the top of buyer queue 410. Thereafter, a seller asks 10 at t17, which initiates a transaction between the buyer bidding market (13) at t06, and the seller asking 10 at t17. The transaction occurs at the average of the bid/ask, or 11.5, which is set as new the market price for future trading.

In situations where there are periods when there are no matching bids/asks, the market bids/asks automatically default to their limit values. This time period prior to default, however, can be adjusted as desired by the Company, i.e., from instantaneous—as soon as there is no match, to any desired delay time. The length of delay may be influenced by or based upon such factors which may include, but are not limited to historical volume for a particular market, company specifications, specifications requested by the original seller/supplier of the traded TDCGs/CCGs, etc. Such a delay could serve to ensure that the market flows more evenly, so that it does not jump uncontrollably up and down between the limits of the bids and asks. Further, use of a delay would help prevent any brief pause in trading from causing all the market bids/asks to default to their limits.

Therefore, the preferred embodiment of the present invention enables continuous updating of market price in a cost-effective manner, which prevents shortages and surpluses in the supply of TDCGs and CCGs. Regarding TDCGs, the present invention enables businesses to sell out events without having to allocate vast resources and time searching for an accurate market price; and consumers will be able to purchase TDCGs without waiting in long lines. Regarding CCGs, the preferred embodiment provides a centralized market nexus so that buyers and sellers will always find an available supply and demand at the market price. Moreover, the preferred embodiment

allows continuous trading of the TDCGs and/or CCGs, with the option of executing physical delivery of the good or executing mere right in ownership of the good within a specified time period to promote the accurate development of a market price. Further, the electronic trading system 500 provides an incentive for sellers to warehouse their own goods, providing a warehouse fee which  
5 may be a function of the number of successive sales of an item an/or which may be based on a pro-rata share of the market.

The invention being thus described, it will be obvious that the same may be varied in many ways. For example, the market price determination has been characterized as being the average of the matching bid/ask . However, market price may be determined in other ways as well, including  
10 but not limited to setting the market price at the sellers transacted price; setting the market price at the buyer's transacted price; setting the market price using the spread between the closest buyer bid and seller ask to the current market price; and/or using the price of the oldest buyer bid as the market price. Such variations are not to be regarded as a departure from the spirit and scope of the invention, and all such modifications as would be obvious to one skilled in the art are intended to be  
15 included within the scope of the following claims.

1    What is Claimed is:

2           1.     A method of electronically determining market price for a consumer good,  
3    comprising:

4           hosting trading of a consumer good at a market nexus, wherein said market nexus is  
5    electronically accessible by potential buyers and sellers;

6           accepting bids/asks from potential buyers and potential sellers at the market nexus;

7           processing the bids to determine possible buyers and sellers to a transaction;

8           determining whether a bid/ask has met a given condition; and

9           transacting right in ownership of the consumer good from seller to buyer when a bid/ask  
10   meets the given condition, wherein the transaction amount reflects the updated market price of the  
11   consumer good.

1           2.     The method of claim 1, wherein said step of processing includes prioritizing bids  
2    and asks by time and by offered amount.

1           3.     The method of claim 1, wherein said step of hosting includes announcing the initial  
2    public sale (IPS) of said consumer good to include at least the date, time, quantity of consumer  
3    good for sale, initial market price and duration of the IPS.

1           4.     The method of claim 1, wherein the consumer good is a time dependent consumer  
2    good and/or a consumer collectible good.

1           5.     The method of claim 2, wherein bids not meeting said given condition are placed in  
2    a queue and ranked from highest to lowest bid and then by time entered in the market, for equal  
3    bids.

1           6.       The method of claim 1, wherein the step of processing includes setting the market  
2 price as the average of the buyer bid and seller ask, once a bid/ask has met the given condition.

1           7.       The method of claim 1, wherein the step of processing includes setting the market  
2 price as the spread between the closest buyer bid and seller ask to the current market price.

1           8.       The method of claim 1, where the buyer of the transacted consumer good can re-  
2 post the consumer good for trading, the final transaction dependent on a buyer requesting physical  
3 possession of the consumer good.

1           9.       The method of claim 1, further comprising:

2           registering said buyers and sellers for trading; and

3           registering the description and quantity of consumer good desired to be posted for trading  
4 by said sellers, wherein said steps of registering are performed prior to said step of hosting.

1           10.      The method of claim 3, wherein the initial market price is set based on stored  
2 historical data of similar consumer goods previously traded and sold, or is determined by the seller.

1           11.      The method of claim 9, wherein sellers post consumer goods for registration via an  
2 electronic interface.

1           12.      The method of claim 11, wherein said electronic interface includes at least one of a  
2 telephone, dial-up modem, ISDN line, DSL/ADSL line, satellite broadband, wireless and fiber-optic  
3 cable, wherein said electronic interface connects the buyer and/or seller with a website  
4 encompassing the market nexus.

1           13.      The method of claim 1, wherein the market nexus is a client communication  
2 package on a central server that is accessed by potential buyers and sellers.

1           14.      The method of claim 1,

2 wherein said bids and asks are apportioned to a respective buyer queue and seller queue,  
3 and

4 wherein said step of determining includes determining whether any bids in the buyer queue  
5 are greater than or equal to an ask bid in the seller queue.

1 15. The method of claim 3, wherein an original seller offering a good at the IPS is the  
2 warehouser of the good, and receives a commission for each transaction of the good until a request  
3 for physical delivery.

1 16. The method of claim 15, wherein, if there are multiple original sellers of a block of  
2 consumer goods at the IPS, the commission is allocated to the sellers as a pro-rata share of the  
3 market.

1 17. The method of claim 1, wherein the step of processing includes setting the market  
2 price at the transacted buy bid of the buyer or at the transacted ask price of the seller.

1 18. The method of claim 10, wherein a seller can allocate his consumer goods to  
2 potential buyers before the IPS so as to set the market price for others potential buyers and/or  
3 sellers when trading begins at the time of the IPS.

1 19. A computer program product comprising a computer-readable medium having  
2 computer program logic stored thereon for enabling a processor in a computer system to determine  
3 market price for a consumer good, said computer program logic comprising:

4 hosting trading of a consumer good at a market nexus, wherein said market nexus is  
5 electronically accessible by potential buyers and sellers;

6 accepting bids/asks from potential buyers and potential sellers at the market nexus;

7 processing the bids to determine possible buyers and sellers to a transaction;

8 determining whether a bid/ask has met a given condition; and

9 transacting right in ownership of the consumer good from seller to buyer when a bid/ask  
10 meets the given condition determined, wherein the transaction amount reflects the updated market  
11 price of the consumer good.

1 20. An application service provider having at least one server for determining market  
2 price for a consumer good, said server performing the functions of:

3 hosting trading of a consumer good at a market nexus, wherein said market nexus is  
4 electronically accessible by potential buyers and sellers;

5 accepting bids/asks from potential buyers and potential sellers at the market nexus;

6 processing the bids to determine possible buyers and sellers to a transaction;

7 determining whether a bid/ask has met a given condition; and

8 transacting right in ownership of the consumer good from seller to buyer when a bid/ask  
9 meets the given condition determined, wherein the transaction amount reflects the updated market  
10 price of the consumer good.



Fig. 1

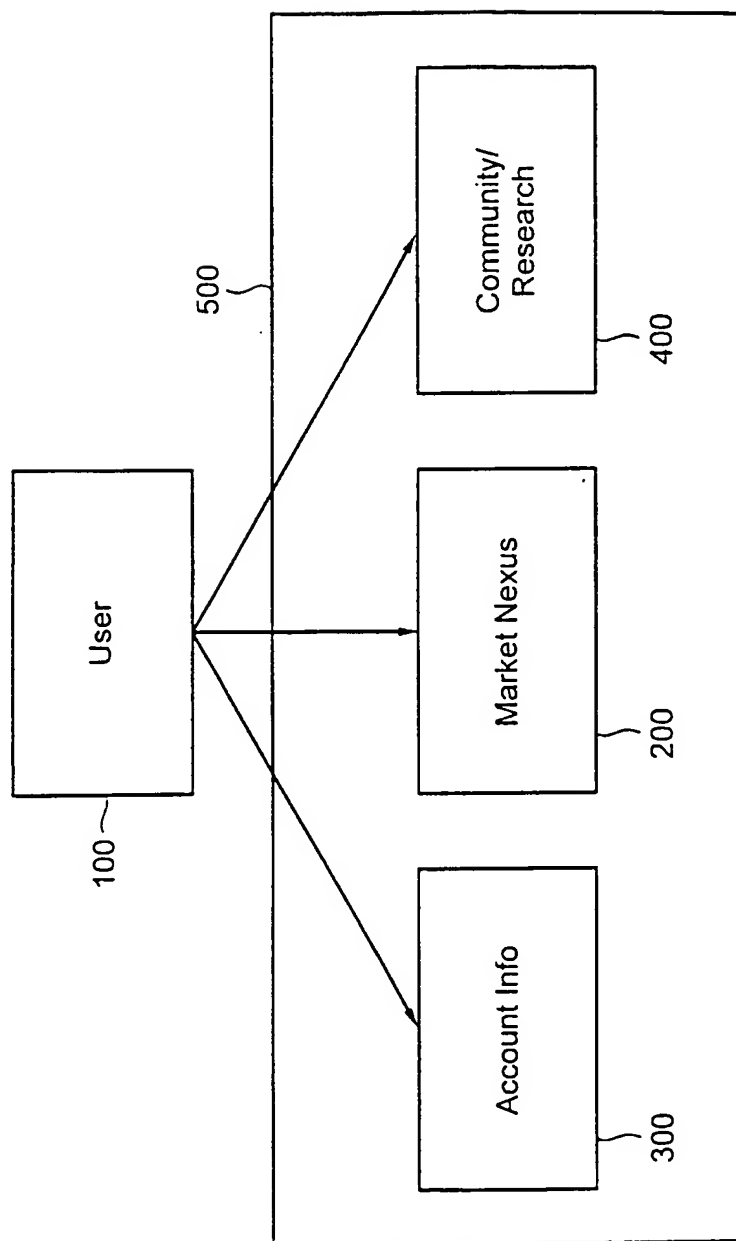


Fig. 2

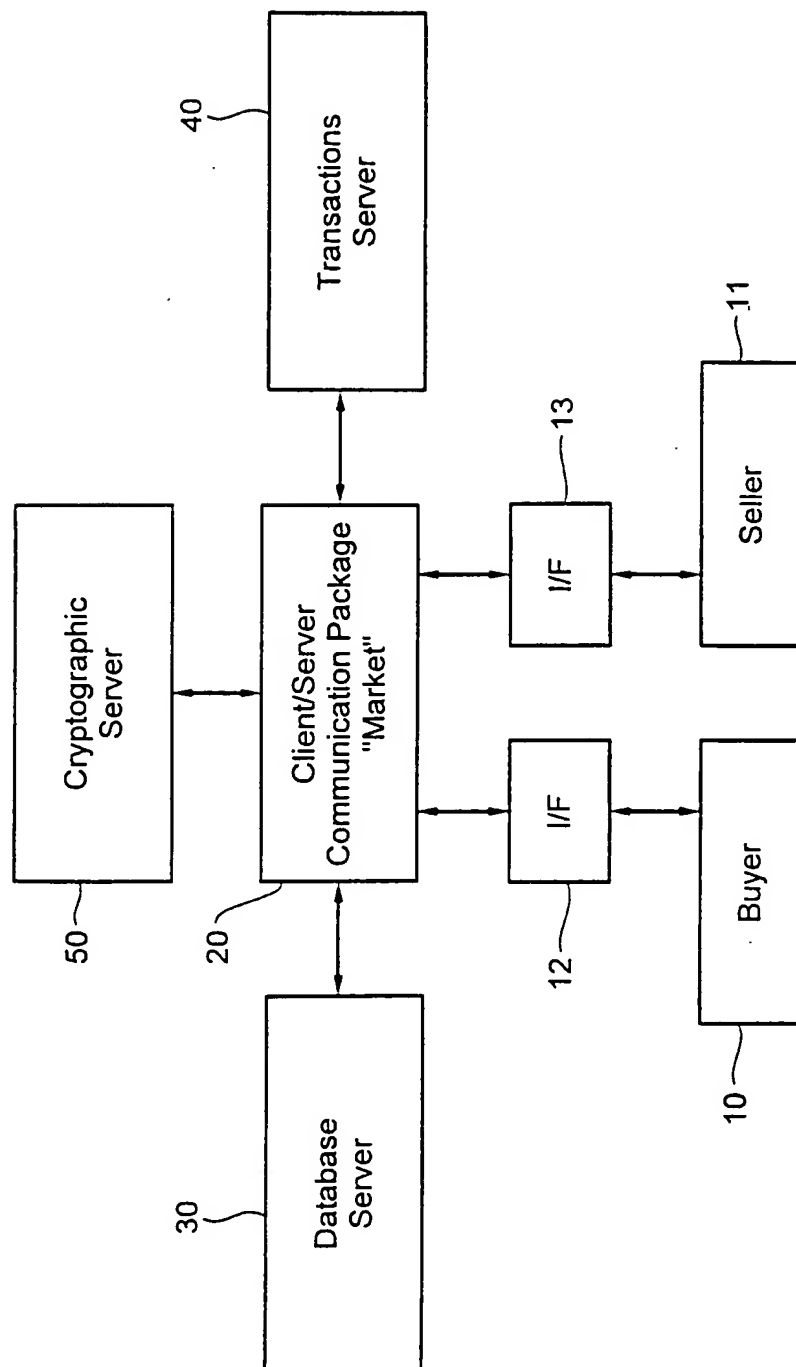


Fig. 3

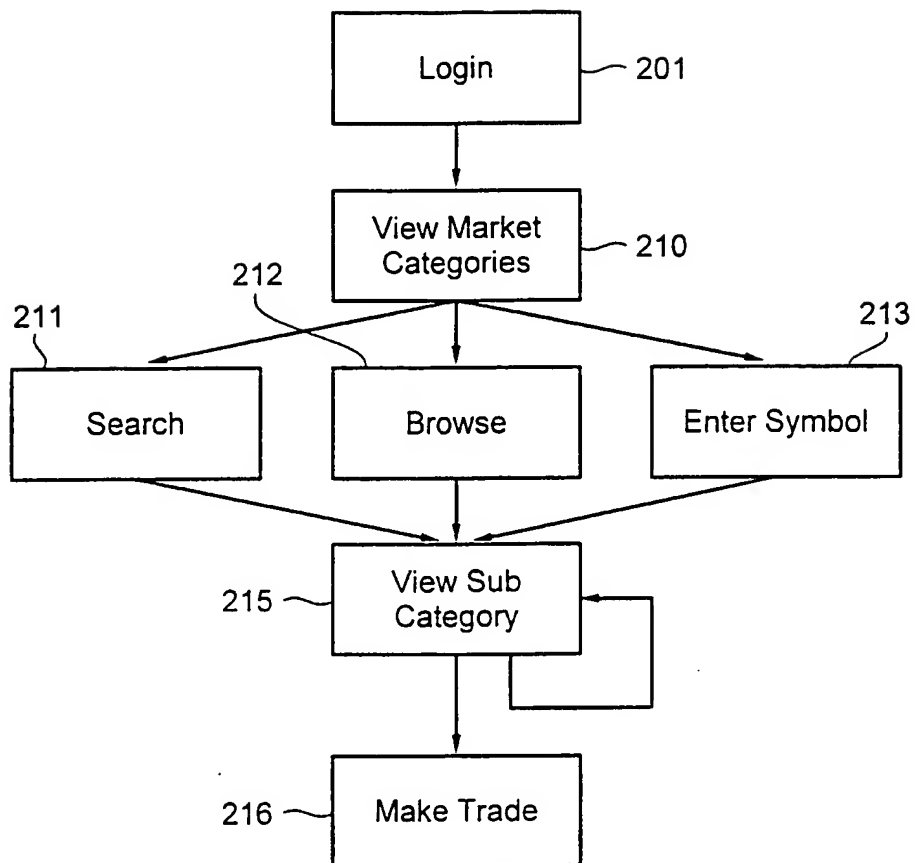


Fig. 4

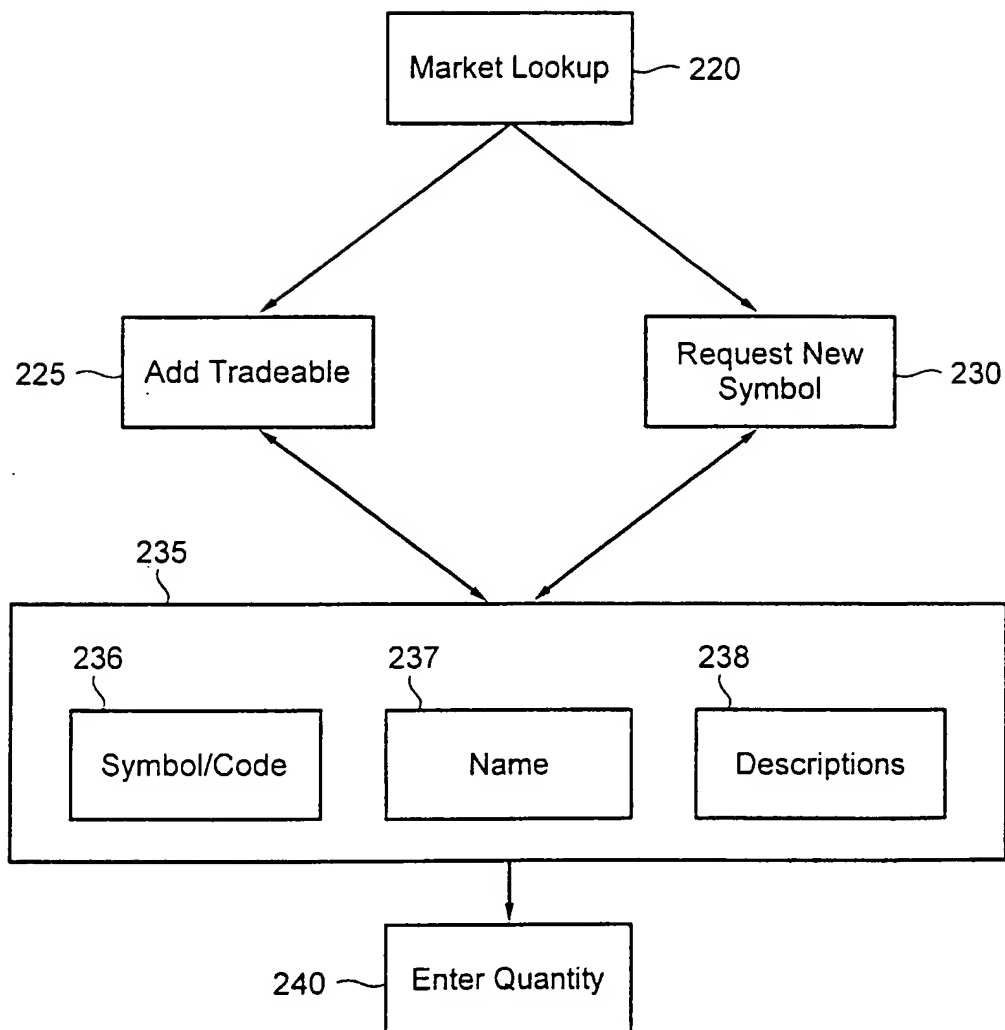
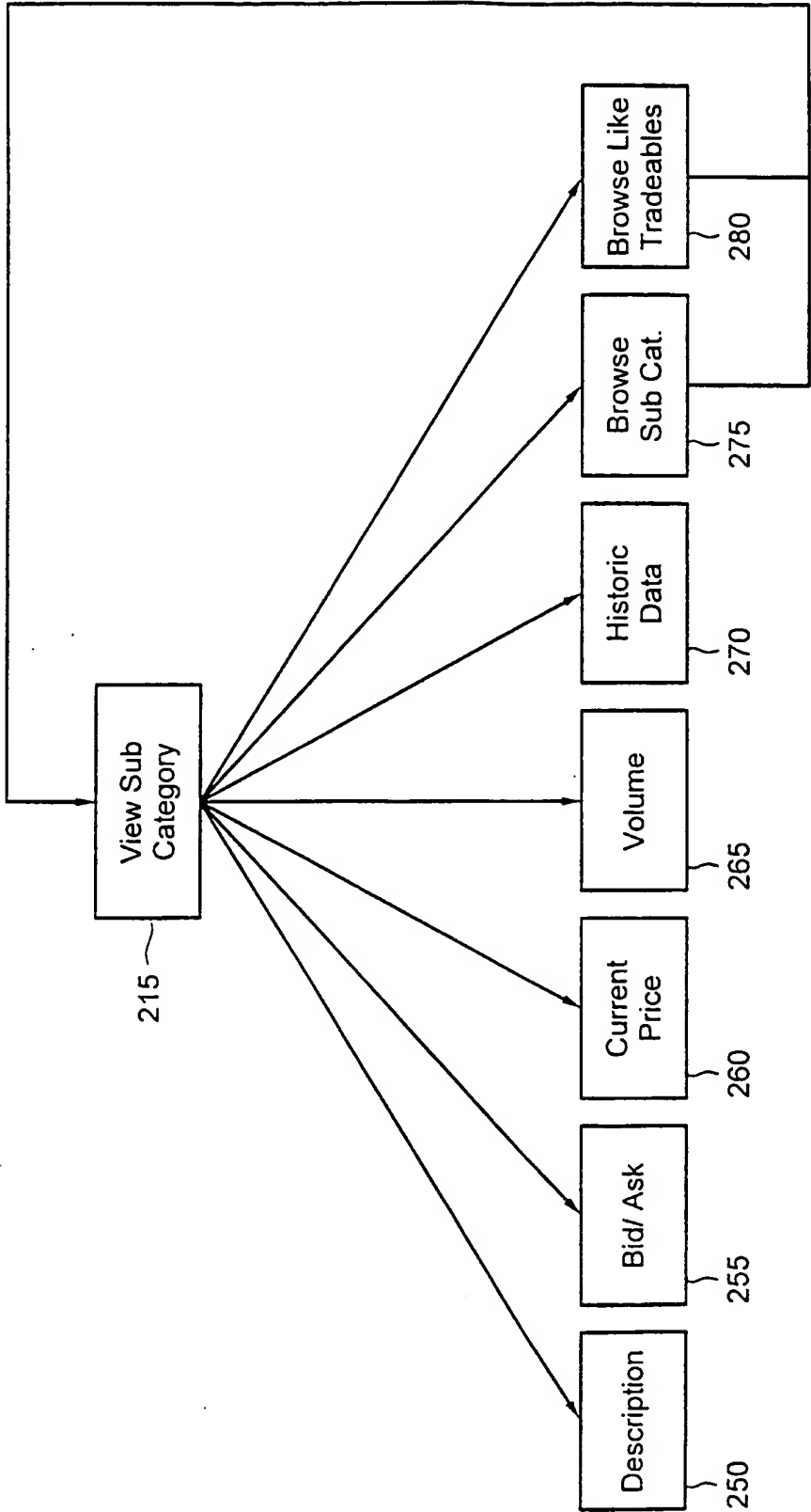


Fig. 5



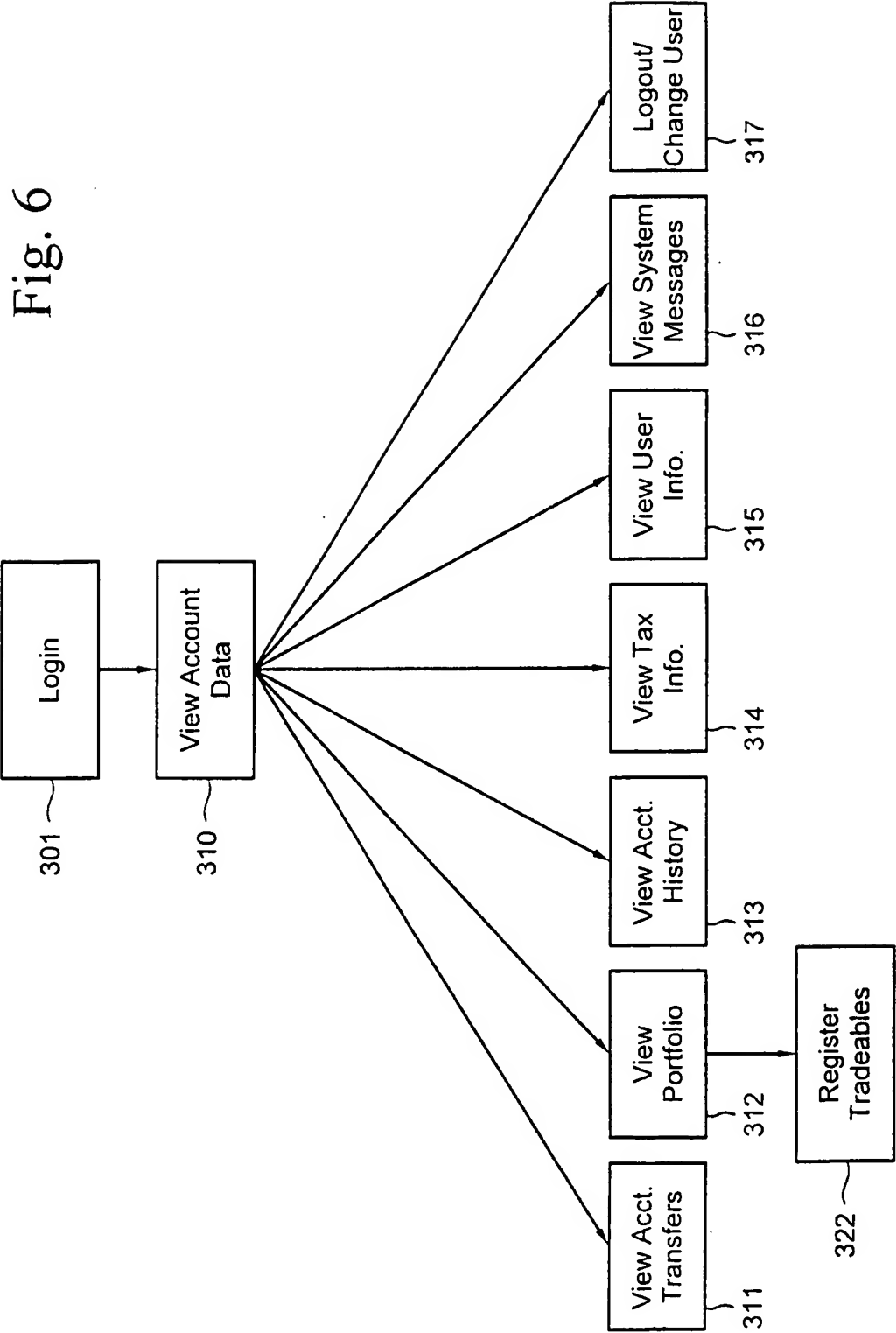
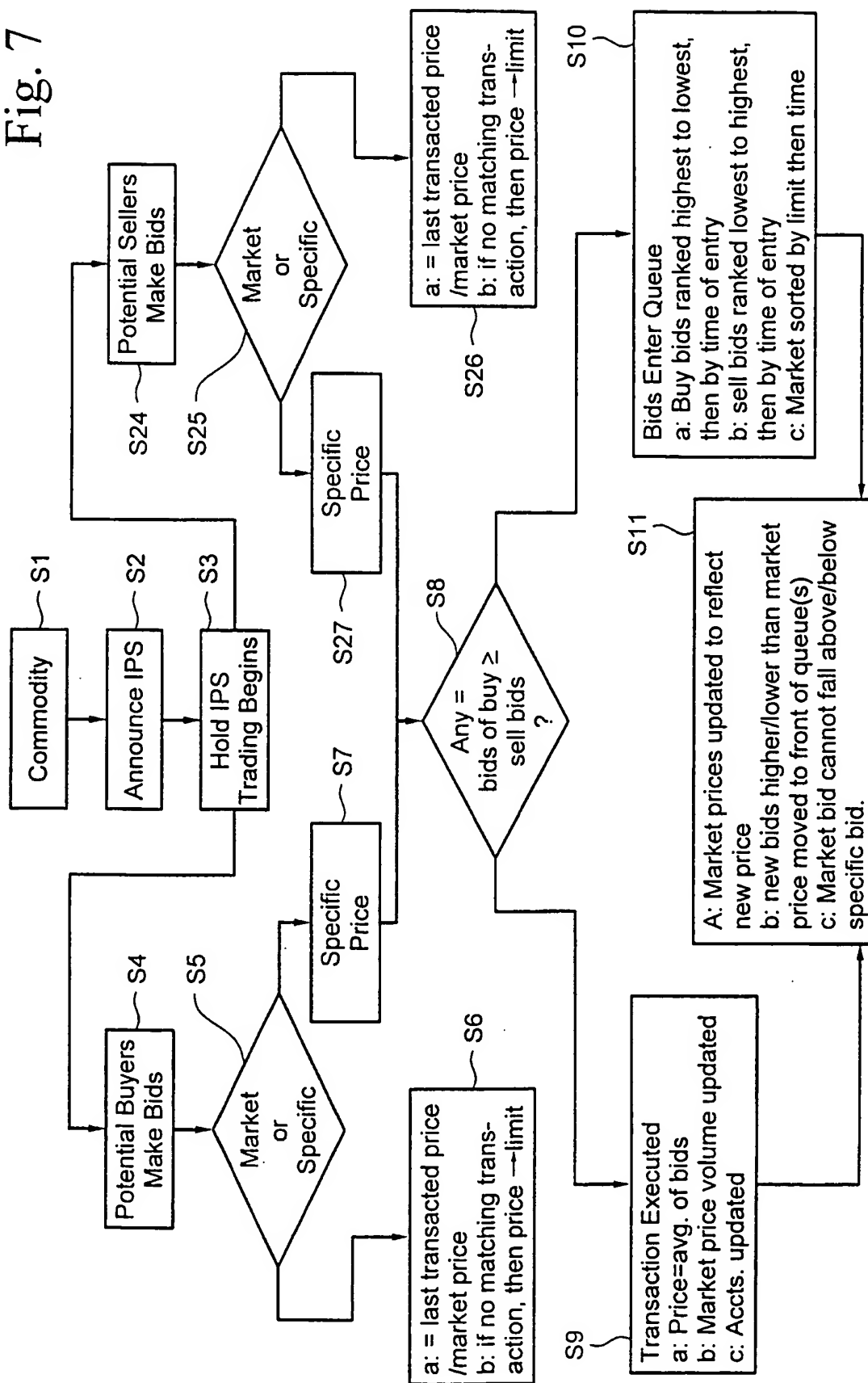


Fig. 7



400		410							
Time	Ask	Bid	Time	Action	Market Price	Time (Seller Ask)	Seller Queue Ask	Buyer Queue Bid	Time (Buyer Ask)
t13	11			t13 sells to t05	12.5	t02	market (16)	market (14)	t05
						t12	17	market (13)	t03
						t01	market (17.5)	market (13)	t06
						t07	18	market (13)	t11
						t09	18	10	t04
						t08	20	9	t10

Fig. 8A

Time	Ask	Bid	Time	Action	Market Price	Time (Seller Ask)	Seller Queue Ask	Buyer Queue Bid	Time (Buyer Ask)
t14	mk1=12.5 (11)			t14 sells to t03	12.5	t02	market (16)	mk1=12.5 (13)	t03
						t12	17	mk1=12.5 (13)	t06
						t01	market (17.5)	mk1=12.5 (13)	t11
						t07	18	10	t04
						t09	18	9	t10
						t08	20		

Fig. 8B



Time	Ask	Bid	Time	Action	Market Price	Time (Sellar Ask)	Seller Queue Ask	Buyer Queue Bid	Time (Buyer Ask)
t15	mkt=12.5 (10)			t15 sells to t06	12.5	t02	market (16)	mkt=12.5 (13)	t06
						t12	17	mkt=12.5 (13)	t11
						t01	market (17.5)	10	t04
						t07	18	9	t10
						t09	18		
						t08	20		

Fig. 8C

Time	Ask	Bid	Time	Action	Market Price	Time (Sellar Ask)	Seller Queue Ask	Buyer Queue Bid	Time (Buyer Ask)
		13	t16	t16 enters Queue	12.5	t02	market (16)	mkt=12.5 (13)	t06
						t12	17	mkt=12.5 (13)	t11
						t01	market (17.5)	10	t04
						t07	18	9	t10
						t09	18		
						t08	20		

Fig. 8D

Time	Ask	Bid	Time	Action	Market Price	Time (Sellar Ask)	Seller Queue Ask	Buyer Queue Bid	Time (Buyer Ask)
t17	10			t17 sells to t06	11.5	t02	market (16)	market (13)	t11
						t12	17	13	t16
						t01	market (17.5)	10	t04
						t07	18	9	t10
						t09	18		
						t08	20		

Fig. 8E